Built to Do Battle

Another male *Triceratops*, a young challenger, approaches the herd leader. The challenger lowers his head and shakes his great frill so its colours stand out. The leader responds by lowering his head and showing off his own frill.

Locking Horns

The two great beasts move together. Their horns lock into one another. They shove and turn, each trying to push his opponent away from the herd. Whoever wins this battle will take the lead of the small herd, and claim mating rights with the females. With a final enormous push, the contest is won. The challenger backs off, defeated.

Theories and Evidence

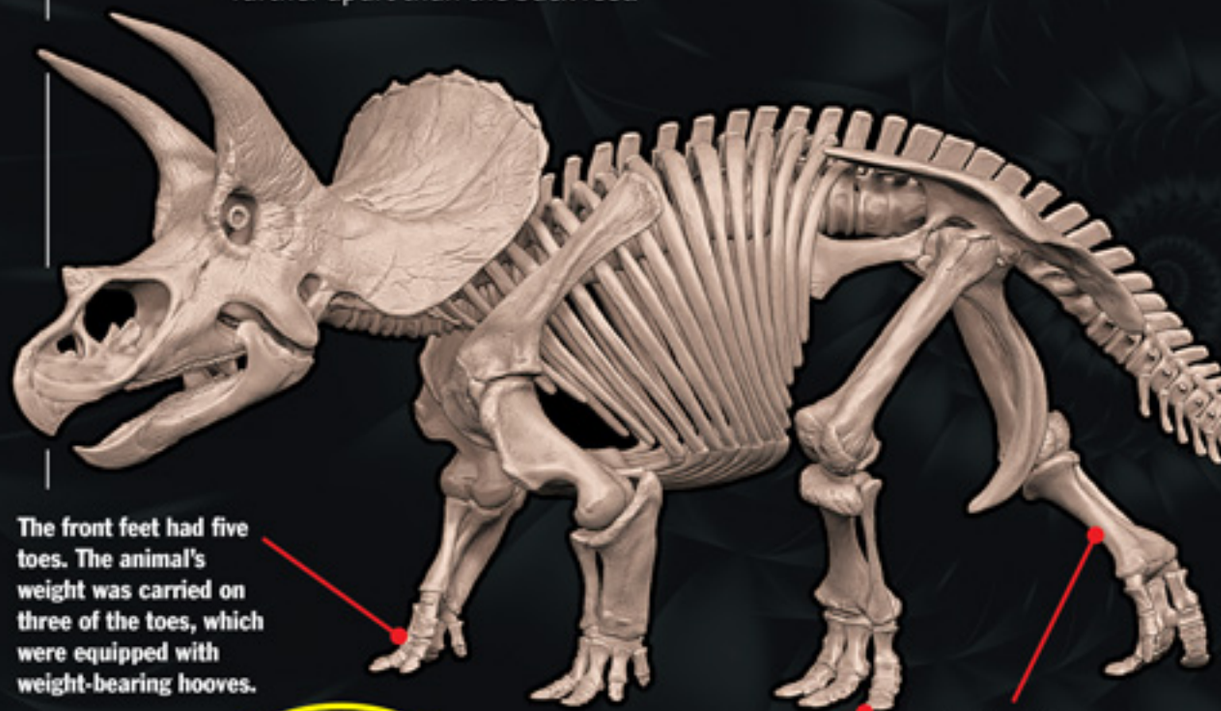
Is this what took place 66 million years ago? Some of this we know. **Palaeontologists** have deduced it from **fossils** and other **evidence**. But other parts of the story are just a **theory**, good guesses based on the lives of other animals. In this book, we will uncover what we know about this huge plant-eater, and how we know it.

Meet Triceratops

With a massive elephant-sized body, *Triceratops* was the biggest of the ceratopsians.

Four Strong Legs

Triceratops's front legs were shorter than its back legs. This suggests it **evolved** from two-footed **ancestors** that only walked on their strong back legs. Its elbows were bent. Scientists know this from studying *Triceratops* trackways preserved in rock. The tracks show that its front feet were slightly further apart than the back feet.



The front feet had five toes. The animal's weight was carried on three of the toes, which were equipped with weight-bearing hooves.

Each back foot had four hoofed toes.

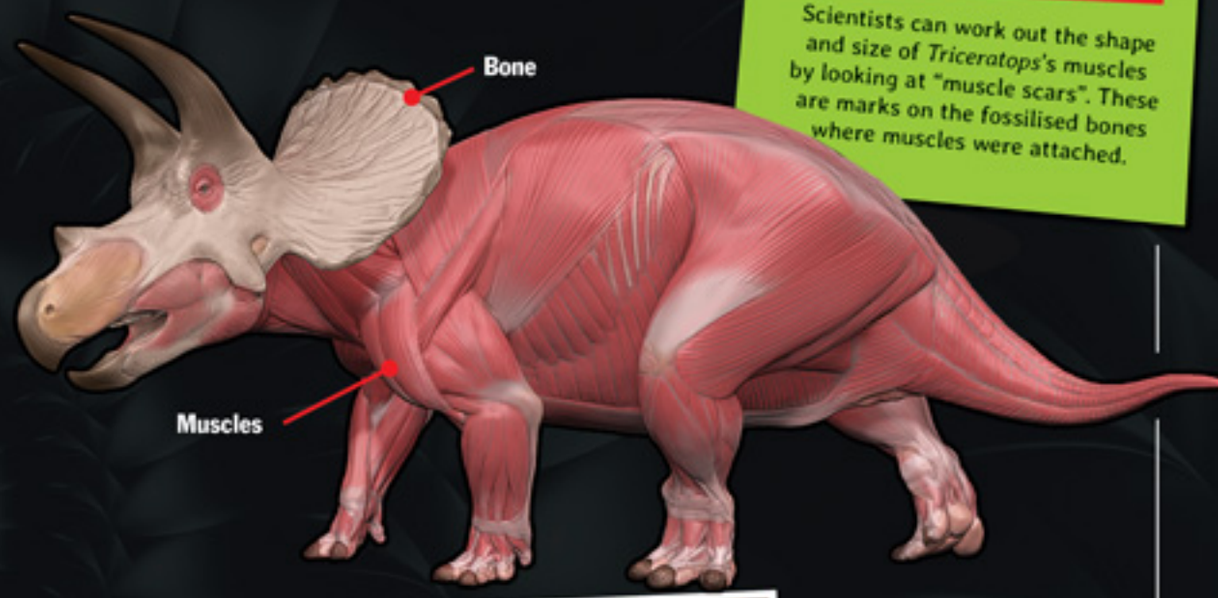
The back legs were held directly under the animal and carried most of its weight.

How Big?

Triceratops was about 9 metres long. Scientists can only estimate its weight, but it's possible an adult weighed up to 12,000 kilograms – the same weight as 12 rhinos!

A Big Digestive System

From the curve of *Triceratops*'s ribs, we can see that its ribcage was very wide and barrel-shaped. This tells us that just like a modern-day cow, *Triceratops* had a very large **digestive system**. It probably had more than one stomach and many metres of **intestines**. This was needed because digesting plant material is a longer and more complicated process than digesting meat.



Muscle Scars

Scientists can work out the shape and size of *Triceratops*'s muscles by looking at "muscle scars". These are marks on the fossilised bones where muscles were attached.



A Scaly *Triceratops*

In 2002, scientists **excavated** a *Triceratops* skeleton in Wyoming, USA. They discovered something that had never been seen before – *Triceratops* skin. Until this time, scientists imagined that *Triceratops* had either tough, smooth skin, like an elephant, or skin covered in small **scales**. The fossilised skin showed that *Triceratops*'s body was covered in large scales. Some of the largest measure 10 centimetres across.